

In the Claims

Please amend the claims as follows:

1. (Amended) A method to modulate angiogenesis comprising administering to an individual in need of treatment thereof an effective amount of a glycosaminoglycan degrading enzyme of using a glycosaminoglycan-degrading enzyme to treat, remove and degrade glycosaminoglycans from proteoglycans comprising

administering to an individual in need of treatment an effective amount of a glycosaminoglycan-degrading enzyme to inhibit endothelial cell proliferation.

2. (Original) The method of claim 1 wherein the enzyme is selected from the group consisting of bacterial glycosaminoglycan degrading enzyme is selected from the group consisting of heparinase 1 from *Flavobacterium heparinum*, heparinase 2 from *Flavobacterium heparinum*, heparinase 3 from *Flavobacterium heparinum*, chondroitinase AC from *Flavobacterium heparinum*, and chondroitinase B from *Flavobacterium heparinum*, heparinase from *Bacteroides* strains, heparinase from *Flavobacterium Hp206*, heparinase from *Cytophagia* species, chondroitin sulfate degrading enzymes from *Bacteroides* species, chondroitin sulfate degrading enzymes from *Proteus vulgaris*, chondroitin sulfate degrading enzymes from *Micrococcus*, chondroitin sulfate degrading enzymes from *Vibrio* species, chondroitin sulfate degrading enzymes from *Arthrobacter aurescens*, these enzymes expressed from recombinant nucleotide sequences in bacteria and combinations thereof.

3. (cancelled)

4. (Original) The method of claim 1 wherein the enzyme is a chondroitinase.

5. (Amended) The method of claim 4 wherein the chondroitinase is selected from
the group consisting of chondroitinase AC, chondroitinase B and a combination therof.

6. (Amended) The method of claim 1 wherein the individual has cancer a disorder
involving cell proliferation.

7. (Amended) The method of claim 6 wherein the cancer is a solid tumor and the
enzyme is chondroitinase AC.

8. (Amended) The method of claim 1 wherein the individual has a disorder in which
angiogenesis cell proliferation is involved, the disorder being selected from the group consisting
of rheumatoid arthritis; psoriasis; ocular angiogenic diseases, rubeosis; Osler-Webber Syndrome;
myocardial angiogenesis; plaque neovascularization; telangiectasia; hemophiliac joints;
angiofibroma; disease of excessive or abnormal stimulation of endothelial cells, Crohn's disease,
atherosclerosis, scleroderma, and hypertrophic scars, diseases that have angiogenesis as a
pathologic consequence, adhesions, scarring following transplantation, cirrhosis of the liver,
pulmonary fibrosis following acute respiratory distress syndrom syndrome or other pulmonary
fibrosis of the newborn, endometriosis, polyposis, obesity, uterine fibroids, prostatic
hypertrophy, and amyloidosis.

9. (Original) The method of claim 1 wherein the enzyme is administered
systemically.

10. (Original) The method of claim 1 wherein the enzyme is administered topically or
locally at or adjacent a site in need of treatment.

11. (Original) The method of claim 1 wherein the enzyme is administered in a controlled and/or sustained release formulation.
12. (Amended) A formulation for administration to an individual in need of treatment thereof for a disorder involving angiogenesis cell proliferation, the formulation comprising an effective amount of a glycosaminoglycan degrading enzyme to inhibit angiogenesis endothelial cell proliferation, wherein the dosage is different than the amount effective for enhancing wound healing, and a pharmaceutically acceptable carrier.
13. (Original) The formulation of claim 12 wherein the enzyme is selected from the group consisting of bacterial glycosaminoglycan degrading enzyme is selected from the group consisting of heparinase 1 from *Flavobacterium heparinum*, heparinase 2 from *Flavobacterium heparinum*, heparinase 3 from *Flavobacterium heparinum*, chondroitinase AC from *Flavobacterium heparinum*, and chondroitinase B from *Flavobacterium heparinum*, heparinase from *Bacteroides* strains, heparinase from *Flavobacterium Hp206*, heparinase from *Cytophagia* species, chondroitin sulfate degrading enzymes from *Bacteroides* species, chondroitin sulfate degrading enzymes from *Proteus vulgaris*, chondroitin sulfate degrading enzymes from *Micrococcus*, chondroitin sulfate degrading enzymes from *Vibrio* species, chondroitin sulfate degrading enzymes from *Arthrobacter aurescens*, these enzymes expressed from recombinant nucleotide sequences in bacteria and combinations thereof.
14. (cancelled)
15. (Original) The formulation of claim 12 wherein the enzyme is a chondroitinase.

16. (Original) The formulation of claim 15 wherein the chondroitinase is chondroitinase AC.

17. (Original) The formulation of claim 12 wherein the enzyme is in a controlled, sustained release formulation.

18. (Amended) The formulation of claim 12 in a dosage effective to inhibit angiogenesis and thereby inhibit or kill tumors wherein the enzyme is formulated in combination with a compound selected from the group consisting of antibiotics, cytokines and anti-inflammatories.